



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 300

#### EPA-HQ-SFUND-1987-0002; FRL -9703-4

National Oil and Hazardous Substances Pollution Contingency Plan;

National Priorities List: Deletion of the Fort Dix Landfill Superfund Site

**AGENCY:** Environmental Protection Agency.

**ACTION:** Direct final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) Region 2 is publishing a direct final Notice of Deletion of the Fort Dix Landfill Superfund Site (Site), located in Pemberton Township, New Jersey, from the National Priorities List (NPL). The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This direct final deletion is being published by EPA with the concurrence of the State of New Jersey, through the NJ Department of Environmental Protection, because EPA has determined that all appropriate response actions under CERCLA, other than operation, maintenance, and five-year reviews, have been completed. However, this deletion does not preclude future actions under Superfund.

**DATES:** This direct final deletion is effective [insert date 60 days from the date of publication in the Federal Register] unless EPA receives adverse comments by [insert date 30 days from date of publication in the Federal Register]. If adverse comments are received, EPA will publish a timely withdrawal of the direct final deletion in the Federal Register informing the public that the deletion will not take effect.

**ADDRESSES:** Submit your comments, identified by Docket ID no. EPA-HQ-SFUND-1987-0002, by one of the following methods:

- <http://www.regulations.gov> . Follow on-line instructions for submitting comments.
- Email: [karas.alida@epa.gov](mailto:karas.alida@epa.gov)
- Fax: (212) 637-3256
- Mail: Alida M. Karas

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- Hand delivery: U.S. EPA Records Center, 290 Broadway, 18th floor, New York, NY 10007.

Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID no. EPA-HQ-SFUND-1987-0002. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through

<http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through <http://www.regulations.gov>, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

**Docket:**

All documents in the docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in the hard copy. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at:

U.S. EPA Region 2 Records Center, 290 Broadway, 18th floor, New York, NY 10007  
Hours: 9:00 a.m. to 5:00 p.m. Monday through Friday. Phone: 212-637-4308; and  
Burlington County Library, 5 Pioneer Boulevard, Westampton, New Jersey 08060.

Hours: Monday 9:00 a.m. to 9:00 p.m., Tuesday – Friday 10:00 a.m. to 9:00 p.m., Saturday 9:00 a.m. to 5:00 p.m., Sunday 1:00 p.m. to 5:00 p.m.; July and August: close at 5:00 p.m. on Fridays, closed on Sundays.

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**SUPPLEMENTARY INFORMATION:**

Table of Contents:

- I. Introduction
- II. NPL Deletion Criteria
- III. Deletion Procedures
- IV. Basis for Site Deletion
- V. Deletion Action

**I. Introduction**

EPA Region 2 is publishing this direct final Notice of Deletion of the Fort Dix Landfill (Site), from the National Priorities List (NPL). The NPL constitutes Appendix B of 40 CFR part 300, which is the Oil and Hazardous Substances Pollution Contingency Plan (NCP), which EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. EPA maintains the NPL as the list of sites that appear to present a significant risk to public health, welfare, or the environment. Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). As described in 300.425(e) (3) of the NCP, sites

deleted from the NPL remain eligible for Fund-financed remedial actions if future conditions warrant such actions.

Because EPA considers this action to be noncontroversial and routine, this action will be effective [insert date 60 days from the date of publication in the Federal Register] unless EPA receives adverse comments by [insert date 30 days after this publication in the Federal Register]. Along with this direct final Notice of Deletion, EPA is co-publishing a Notice of Intent to Delete in the “Proposed Rules” section of the Federal Register. If adverse comments are received within the 30-day public comment period on this deletion action, EPA will publish a timely withdrawal of this direct final Notice of Deletion before the effective date of the deletion, and the deletion will not take effect. EPA will, as appropriate, prepare a response to comments and continue with the deletion process on the basis of the Notice of Intent to Delete and the comments already received. There will be no additional opportunity to comment.

Section II of this document explains the criteria for deleting sites from the NPL. Section III discusses procedures that EPA is using for this action. Section IV discusses the Fort Dix Landfill Superfund Site and demonstrates how it meets the deletion criteria. Section V discusses EPA’s action to delete the Site from the NPL unless adverse comments are received during the public comment period.

## **II. NPL Deletion Criteria**

The NCP establishes the criteria that EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. In making such a determination pursuant to 40 CFR 300.425(e), EPA will consider, in consultation with the state, whether any of the following criteria have been met:

- i. responsible parties or other persons have implemented all appropriate response actions required;
- ii. all appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or
- iii. the remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Pursuant to CERCLA section 121 (c) and the NCP, EPA conducts five-year reviews to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at a site above levels that allow for unlimited use and unrestricted exposure. EPA conducts such five-year reviews even if a site is deleted from the NPL. EPA may initiate further action to ensure continued protectiveness at a deleted site if new information becomes available that indicates it is appropriate. Whenever there is a significant release from a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

### **III. Deletion Procedures**

The following procedures apply to deletion of the Site:

- (1) EPA consulted with the state of New Jersey prior to developing this direct final Notice of Deletion and the Notice of Intent to Delete co-published today in the “Proposed Rules” section of the Federal Register.

- (2) EPA has provided the state 30 working days for review of this notice and the parallel Notice of Intent to Delete prior to their publication today, and the state, through the New Jersey Department of Environmental Protection, has concurred on the deletion of the site from the NPL.
- (3) Concurrently with the publication of this direct final Notice of Deletion, a notice of the availability of the parallel Notice of Intent to Delete is being published in the major local newspaper, the Burlington County Times. The newspaper notice announces the 30-day public comment period concerning the Notice of Intent to Delete the Site from the NPL.
- (4) The EPA placed copies of documents supporting the proposed deletion in the deletion docket and made these items available for public inspection and copying at the Site information repositories identified above.
- (5) If adverse comments are received within the 30-day public comment period on this deletion action, EPA will publish a timely notice of withdrawal of this direct final Notice of Deletion before its effective date and will prepare a response to comments and continue with the deletion process on the basis of the Notice of Intent to Delete and the comments already received.

Deletion of a site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a site from the NPL does not in any way alter EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the NCP states that the

deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.

#### **IV. Basis for Site Deletion**

The following information provides EPA's rationale for deleting the Site from the NPL:

##### **Site Background and History**

The Fort Dix Landfill is now named the “Dix Area Sanitary Landfill” due to the formation of the Joint Base McGuire Dix Lakehurst (JBMDL). The Dix Area Sanitary Landfill is located in the southwest section of the JB MDL in Pemberton Township, Burlington County, New Jersey. The landfill covers approximately 126 acres and is located about 2,200 feet from the post boundary. Two streams flow near the landfill: Cannon Run is located on the east side of the landfill, and flows south into the North Branch of Rancocas Creek; and an unnamed stream is located northwest of the landfill, and flows to the west into the North Branch of Rancocas Creek. A swamp that drains into Budd’s Run is located to the west of Pipeline Road. The area immediately surrounding the Dix Area Sanitary Landfill consists of a hardwood swamp and densely vegetated hardwood forest. The town of Browns Mills is immediately to the east of the Military Reservation. To the south of the Dix Area Sanitary Landfill are two abandoned farms, approximately 12 homes, several county buildings, the County Hospital, and the Burlington County Juvenile Detention Center and shelter. Pemberton Township municipal buildings, sewage disposal plant, public water supply wells, and several homes are located to the southwest of the landfill. The surficial aquifer consists of a fine to silty sand unit (Cohansey and Kirkwood Formations) that overlies the fine grained silts and clays of the Manasquan, Hornerstown, and Navesink Formations. The Cohansey and Kirkwood Formations form a single unconfined aquifer at the site. Groundwater flow in



this aquifer is to the south and southwest. The underlying Manasquan, Hornerstown, and Navesink Formations form a confining layer that limits downward vertical groundwater flow from the landfill site.

The Dix Area Sanitary Landfill began operation in 1950; it was officially closed on July 6, 1984. Prior to landfill development, the area was used for Army training. Between 1950 and 1984, the landfill was used and operated by the Fort Dix Military Reservation. McGuire Air Force Base also used the landfill from 1968 until it was closed. Access to the landfill was not controlled until 1980; therefore, records of disposal practices, waste types, and quantities are incomplete. Wastes that have been reportedly disposed of at the landfill include domestic waste, paints and thinners, demolition debris, ash, and solvents.

An interim New Jersey Pollutant Discharge Elimination System (NJPDES) permit was issued for the Dix Area Sanitary Landfill on May 29, 1984. On July 6, 1984, the Army ceased the disposal of waste at the landfill in compliance with the landfill closure date. The landfill was proposed for inclusion on the NPL on October 15, 1984 (49 FR 40320). On September 16, 1985, the Army entered into an Administrative Consent Order (ACO) with the New Jersey Department of Environmental Protection (NJDEP). The ACO required the Army to conduct a Remedial Investigation/Feasibility Study (RI/FS) and to implement the selected remedial alternative approved by NJDEP and United States Environmental Protection Agency (USEPA). The Dix Area Sanitary Landfill Site was placed on the NPL on July 22, 1987 (52 FR 27620).

On July 19, 1991, the Army entered into an interagency agreement, under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120, known as the Federal Facility Agreement (FFA) with USEPA. The FFA superseded the

ACO and provided the formal basis for selection of the remedy and the implementation of the Record of Decision (ROD) at the Dix Area Sanitary Landfill Site at JB MDL.

### **Remedial Investigation/Feasibility Study**

The Remedial Investigation/Feasibility Study (RI/FS) was completed in 1987. The RI/FS included a risk assessment to determine the potential for impact to public health and the environment, which may result if the contamination associated with the Dix Area Sanitary Landfill, was not controlled. In conducting this assessment, the focus was on the human health and environmental effects that could result from exposure to contaminants associated with the landfill in various media (air, surface water, sediment, soil, and groundwater). During the evaluation of site risks, chemicals detected at the site were screened to select indicator chemicals for the Dix Area Sanitary Landfill site. These chemicals were selected as most representative of site conditions and expected to contribute the greatest risks to human health and the environment. The indicator chemicals for the site include: 1,2-dichloroethane, benzene, vinyl chloride, trichloroethylene, tetrachloroethylene, chlorobenzene, 2-butanone, toluene, trans-1,2-dichloroethylene, bis(2-ethylhexyl)phthalate, 1,4-dichloroethylene, 1,1,1-trichloroethane, ethylbenzene, nickel, mercury, cadmium, zinc, chromium, and manganese.

Based on an evaluation of the data obtained during the RI, the ROD summarizes the following remedial objectives:

- To prevent contaminants migrating from the landfill from affecting drinking water supplies of the local population;
- To prevent landfill contaminant migration/exposure via Cannon Run and Budd's Run (swamp) from restricting State-designated downstream surface water uses on the North Branch of Rancocas Creek (i.e., fishing, swimming, and future water supply);

- To protect people who perform military-related or unauthorized recreational activities on the JBMDL property from potentially harmful effects due to landfill contaminants;
- To satisfy all appropriate local, State, and Federal requirements for landfill closure;
- To prevent significant adverse environmental impacts on the surrounding flora and fauna caused by contaminant release from the Dix Area Sanitary Landfill; and
- To satisfy all site-specific Applicable or Relevant and Appropriate Requirements (ARARs) as practicable.

### **Selected Remedy**

The Record of Decision (ROD), signed on September 24, 1991, consists of the following requirements:

- Installation of a cap on the southern 53 acres of the landfill consisting of vegetative, drainage, and low-permeability layers. Maintenance of 2 ft of existing final cover on the remaining portion of the landfill.
- Installation of a landfill gas venting and air monitoring system to determine if methane gas and VOC emissions require treatment.
- Installation of a chain link fence around the perimeter of the landfill to restrict access.
- Implementation of landfill closure requirements in accordance with New Jersey Closure Requirements, New Jersey Administration Code (NJAC) 7:26-2A et seq., and Resource Conservation and Recovery Act (RCRA) guidance.
- Perform long-term groundwater, surface water, sediment and air monitoring (30 years) pursuant to the New Jersey State closure requirements. Perform a yearly statistical analysis on the chemical analysis results to determine the trend of the overall contamination levels.

- Long-term O&M to provide inspection of and repairs to the landfill cap.
- Implementation of ICs in the form of deed and water restrictions on future uses of the landfill and groundwater in the immediate vicinity of the landfill.
- Development and implementation of a Soil Erosion and Sediment Control Plan in accordance with the Soil Erosion and Sediment Control Act Regulations of 1975 - New Jersey Statutes Annotated (NJSA) 4:24-40 et seq., and NJAC 2:90-1.1 et seq.
- Using the data obtained in the monitoring program, review the risk assessment and subsequently revise the risk assessment if the trend shows significant changes in water quality. These reviews and revisions will be performed within three years of commencement of a remedial action and at least every five years thereafter. Any changes in actual exposure scenarios will be addressed in the revised risk assessments. Risk assessments will use USEPA guidance and policy effective at the time of the review.
- Except for monitoring, no groundwater remedy was specified because the contaminant plume could not be defined beyond isolated "hot spots".

### **Response Actions**

The U.S. Army Corps of Engineers (USACE) acted on behalf of the Army at Fort Dix for both phases of the project and supervised all engineering and construction contracts required for completion of the work. Professional engineering services' for both phases were provided by Law Engineering and Environmental Services, Inc. (Law Environmental).

Phase I encompassed the approximately 126 acre Landfill with a six-foot perimeter chain link fence and provided two feet of soil cover to the northernmost 73 acres, This was completed early in fiscal year (FY) 1992. The contractor for Phases I and II was the George Hanus Co.

Phase II included covering of the southernmost 50 acres with a multilayer impermeable cap. The contract for the construction requirements of Phase II Remedial Action was awarded on June 30, 1994. Construction was completed in FY 97. In September, 1997 Law Environmental provided a Construction Completion Report to USACE. It was prepared and certified by C. Keith Brasher, a Professional Engineer licensed in the State of New Jersey.

The remedial design, work plans, performance standards, construction quality control measures, O&M, and long-term monitoring plans (LTMPs) were submitted to and approved by USEPA and NJDEP. The Army, its design contractor, the USACE, NJDEP, and USEPA reviewed, monitored, and inspected all design and construction activities, and have determined all activities were completed in accordance with the approved documents. USEPA made a final inspection of the completed work on March 28, 1998.

Institutional Controls in the form of Master Plan Amendments that are equivalent to deed restrictions on future uses of the Dix Area Sanitary Landfill have been implemented since the property is under the control and ownership of the Federal government. The Dix Area Master Plan restricts Army use of the Dix Area Sanitary Landfill site including the surrounding impacted areas. In the event the landfill property were no longer under the control and ownership of the Federal Government, implementation of appropriate deed notices or additional remediation to meet non-restricted use standards would be required to ensure the remedy remains protective of human health and the environment. In addition to the Dix Area Master Plan, the site will be enrolled in the NJDEP Classification Exception Area (CEA) program upon deletion from the NPL. The CEA program is established as a groundwater land use control (LUC) that serves to restrict the use of groundwater until regulatory standards have been achieved.

## **Cleanup Goals**

The 1991 ROD including long term monitoring for contaminated groundwater outside the landfill unit boundary. The indicator chemicals for the site include: 1,2-dichloroethane, benzene, vinyl chloride, trichloroethylene, tetrachloroethylene, chlorobenzene, 2-butanone, toluene, trans-1,2-dichloroethylene, bis(2-ethylhexyl)phthalate, 1,4-dichloroethylene, 1,1,1-trichloroethane, ethylbenzene, nickel, mercury, cadmium, zinc, chromium, and manganese. These contaminants were evaluated in groundwater samples and compared to EPA MCLs and state standards, as appropriate. The method used to determine the appropriate groundwater screening criteria is a comparison of the NJDEP groundwater quality standards (NJGWQS) and the USEPA maximum contaminant level (MCL) values. The more stringent of the values is used.

### *Inorganic Groundwater Monitoring Results*

Based on groundwater monitoring conducted to date, nutrient metals are the only analytes exceeding screening criteria and exhibiting increasing concentration trends according to the Mann-Kendall Analysis. These exceedances and increasing trends occur both upgradient and downgradient of the landfill. In reviewing historical analytical data for this site, it has been noted that nutrient metals have been consistently present at concentrations above screening criteria. In an effort to understand the geochemical make-up of the local hydrogeology, several studies were reviewed. Following this review, it was evident that several naturally-occurring characteristics of the local hydrogeology are contributing to the elevated concentrations of nutrient metals in groundwater.

Fresh, uncontaminated groundwater in the Kirkwood-Cohansey aquifer system has naturally-occurring low pH. During the groundwater sampling program, pH levels were measured between 3 and 6 at both upgradient and downgradient locations. In the Kirkwood-

Cohansey aquifer, calcium and bicarbonate are usually dominant ions in solution, with smaller amounts of sodium, potassium, magnesium sulfate, manganese and chloride. The surficial aquifer underlying and adjacent to the Dix Area Sanitary Landfill exhibits persistent exceedances of calcium, magnesium, manganese, sodium, and potassium that are attributed to this naturally-occurring condition. In 1988, the USEPA determined that concentrations of iron and manganese present a problem near the water table because the groundwater tends to have a low pH. Elevated concentrations of manganese and iron are also attributed to reductive dissolution by metal reducing bacteria feeding on petroleum contaminants. The reduced form of both iron and manganese are more water soluble than their oxidized counterparts. During the Spring 2010 and Fall 2010 sampling events, water quality data collected indicated a sporadic distribution of anaerobic and aerobic groundwater conditions. The data show both acid leaching and anaerobic degradation of gasoline contamination that is a waste of concern at the landfill, leading to elevated concentrations of manganese and iron. As a result of these evaluations, the Addendum to the 2005 CERCLA Five-Year Review concluded that manganese is naturally occurring and was removed as a COC from the site.

### *Organics*

In 1979 and 1982, a series of groundwater monitoring wells were installed around the perimeter of the landfill. Reports indicated volatile organic compounds (VOCs) were detected in many of the groundwater samples taken in 1982. The two major VOCs exceeding the NJDEP groundwater limits were methylene chloride and trichloroethylene. In December 1983, eight additional groundwater monitoring wells were installed to further define groundwater contamination. Eleven additional wells were installed in May 1984 as part of a groundwater investigation performed by the U.S. Army Engineers Waterways Experiment Station. VOCs and

heavy metals were detected in the groundwater samples collected from wells located immediately to the south, southeast, and southwest of the landfill. These compounds included methylene chloride, dichloroethane, trichloroethane, trichloroethylene, tetrachloroethylene, methyl ethyl ketone, methyl isobutyl ketone, mercury, cadmium, and other heavy metals. Based on the 2010 five year review recommendations, eight sentinel wells were evaluated and established downgradient of the landfill cap. These groundwater monitoring locations were sampled for eight continuous quarters (September 2009 to July 2011) and groundwater was analyzed for all contaminants of concern (COCs). With the exception of manganese (which was removed as a site COC), the results show no screening criteria exceedances were observed downgradient of the landfill and that COCs are below screening criteria at the landfill unit boundary. After the evaluation of the proposed sentinel wells, JBMDL proposed nine alternative wells, closer to the landfill, that are currently in the LTMP, to make up the sentinel well network. Wells LTM-9, 10, 12, 13, 14, 17, 18, 34 & 36 are now designated as sentinel wells and shall be used for compliance determination.

#### *Operation and Maintenance*

In general, O&M of the Dix Area Sanitary Landfill consists of the collection and analysis of groundwater, sediment, and surface water samples; routine mowing; limiting erosion; and maintaining site security.

#### *Air Monitoring*

With concurrence from USEPA and NJDEP, the Dix Area Sanitary Landfill gas venting and air monitoring system is no longer sampled and analyzed after it was determined there was no longer a need to monitor for methane gas or VOC emissions. Approval to terminate the air monitoring was received by NJDEP and USEPA in 2000.



### *Surface Water Monitoring*

The majority of the surface water location samples that exceed analyte concentrations contain nutrient metals that are not COCs for surface water at the Dix Area Sanitary Landfill.

As part of the five-year review process an Ecological Risk Assessment was completed evaluating surface water analytical data up to and including September 2009. With the exception of manganese and mercury, there have been no COC screening criteria exceedances at the landfill in the last three years. The Addendum to the 2005 CERCLA Five-Year Review (Plexus, 2009) concluded that manganese is naturally occurring and was removed as a COC from the program. During the Spring 2010 and Fall 2010 sampling events, mercury exceeded screening criteria at three surface water locations (SW-1, SW-2, and SW-9). All three of these locations are situated northwest of the Dix Area Sanitary Landfill, along Budd's Run and immediately downgradient of the PDO Landfill, where mercury is the main COC. The issue of mercury exceedances along Budd's Run (the body of water that contains these surface water locations) has been addressed in the 2005 CERCLA Five-year Review Addendum. The five year review addendum concluded that the mercury exceedances are attributed to a separate site upgradient of the Dix Area Sanitary Landfill. The results of the ERA illustrate that in September 2009 only one COC (zinc) at SW-2 exceeded ecological screening criteria (ESC). Since this ESC exceedance, the concentration of zinc at SW-2 has reduced in concentration below the ESC.

### *Sediment Monitoring*

The majority of the sediment location samples that exceed analyte concentrations contain nutrient metals that are not COCs for sediment at the Dix Area Sanitary Landfill. As part of the five-year review process an Ecological Risk Assessment was completed evaluating sediment analytical data up to and including September 2009. With the exception of chlorobenzene,

manganese and mercury, there have been no COC screening criteria exceedances at the landfill in the last three years. Although chlorobenzene exceeds the screening criteria, it does not exceed its respective ecological benchmark. The Addendum to the 2005 CERCLA Five-Year Review (Plexus, 2009) concluded that manganese is naturally occurring and was removed as a COC from the program. Since April 2010 the only sample location that exceeds screening criteria is SD-9. SD-9 is situated northwest of the Dix Area Sanitary Landfill, along Budd's Run and immediately downgradient of the PDO Landfill, where mercury is the main COC. The issue of mercury exceedances along Budd's Run (the body of water associated with this sediment location) has been addressed in the 2005 CERCLA Five-year Review Addendum. The five year review addendum concluded that the mercury exceedance is attributed to a separate site upgradient of the Dix Area Sanitary Landfill.

Low-level pesticide exceedances of dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyltrichloroethane (DDT) occur at locations SD-5 and SD-6, but do not occur at the landfill boundary. DDE and DDT are ubiquitous to Fort Dix and are not considered COCs for the Dix Area Sanitary Landfill. The results of the ERA illustrate that in September 2009 only one COC (mercury) at SD-9 exceeded ESC. Since this ESC exceedance, the concentration of zinc at SW-2 has reduced in concentration below the ESC. The 2005 CERCLA Five-year Review Addendum concluded that the mercury exceedances at this location are attributed to a separate site upgradient of the Dix Area Sanitary Landfill.

### *Site Inspections*

Site inspections are performed by a JB MDL representative every 30 days and after large rain events or episodes of severe weather. The O&M contractor also performs a separate inspection on a quarterly basis. A compilation of these quarterly inspection reports is submitted

to the regulatory agencies for review on annual basis. For areas that do not have a landfill cap installed, visual observations are made to ensure run-on and runoff controls are performing as intended. Any exposed waste in these areas is covered with compacted soil.

#### *Cap Maintenance*

On the landfill cap, tree and brush growth is not allowed for protection of the cap's liner system. Areas of settlement and damage by burrowing animals are repaired as needed. The sediment and erosion control features are maintained by cleaning debris and accumulated sediment to maintain proper infiltration and prevent clogging of the outlet control structure and emergency spillway. Since the last Five-year Review, there has been evidence of minor burrowing activity; however, the effects of the burrowing activity have not impacted the landfill cap or the protectiveness of the remedy. When located, burrows are routinely destroyed during the inspection process.

NJDEP will assume lead regulatory responsibility for all future O&M, implementation of ICs, and ensuring that the remedy remains protective into the future. Site LUCs will continue under the current NJDEP CEA program for the site. Long Term Monitoring of groundwater, surface water and sediment will continue in accordance with Long-Term Monitoring Plan.

#### **Five-year Review**

The third five year review was completed September 15, 2100. The technical assessment summary concluded that the remedy is functioning as intended and remains protective of human health and the environment. There were three issues highlighted in the review. Evidence of erosion along the western slope of the landfill was identified. This erosion was stabilized and vegetation cover was restored. A fallen tree along the northern boundary perimeter fence was

removed, and the fence was restored. There was a lack of sentinel wells to delineate groundwater COCs. Sentinel wells have been selected or installed.

The next Five-year Review for the Dix Area Sanitary Landfill is required by September 2015.

### **Community Involvement**

Public participation activities for this Site have been satisfied as required in CERCLA sections 113(k) and 117, 42 U.S.C. 9613 (k) and 9617. Throughout the removal and remedial process, EPA and the NJDEP have kept the public informed of the activities being conducted at the Site by way of public meetings, progress fact sheets, and the announcement through local newspaper advertisement on the availability of documents such as the RI/FS, Risk Assessment, ROD, Proposed Plan and Five-Year Reviews. Notices associated with these community relations activities were also mailed out to the area residents and other concerned parties on the mailing list for the Site.

### **Determination That the Site Meets the Criteria for Deletion From the NCP**

The NCP specifies that EPA may delete a site from the NPL if "responsible parties or other persons have implemented all appropriate response actions required " as stated in 40 CFR 300.425(e) (1) (ii). EPA, with the concurrence from the State of New Jersey, through NJDEP, dated May 3, 2012, believes that this criterion for deletion has been met. Consequently, EPA is deleting this Site from the NPL. Documents supporting this action are available in the Site files.

The Site meets all the site completion requirements as specified in the ROD, and all of the remedial actions at the site have been implemented. The implemented remedy achieves the degree of clean-up and protection specified in the ROD for all pathways of exposure. Continued implementation of the ICs and LTMP will ensure the long-term protectiveness of the remedy.

Currently, none of the COCs outlined in the ROD have migrated past the landfill unit boundary as evidenced by groundwater, surface water and sediment data collected.

No further Superfund response is needed to protect human health and the environment.

## **V. Deletion Action**

The EPA, with concurrence of the State of New Jersey through the NJ Department of Environmental Protection, has determined that all appropriate response actions under CERCLA, other than operation, maintenance, monitoring and five-year reviews have been completed. Therefore, EPA is deleting the Site from the NPL.

Because EPA considers this action to be noncontroversial and routine, EPA is taking it without prior publication. This action will be effective [insert date 60 days from the date of publication in the Federal Register] unless EPA receives adverse comments by [insert date within 30 days of this publication in the Federal Register]. If adverse comments are received within the 30-day public comment period, EPA will publish a timely withdrawal of this direct final notice of deletion before the effective date of the deletion, and it will not take effect. EPA will prepare a response to comments and continue with the deletion process on the basis of the notice of intent to delete and the comments already received. There will be no additional opportunity to comment.

## **List of Subjects in 40 CFR Part 300**

Environmental protection, Air pollution control, Chemicals, Hazardous waste, Hazardous substances, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

July 9, 2012

Dated

Judith Enck

Regional Administrator

Region 2

For the reasons set out in this document, 40 CFR part 300 is amended as follows:

**PART 300—[AMENDED]**

1. The authority citation for part 300 continues to read as follows:

Authority: 33 U.S.C. 1321(c)(2); 42 U.S.C. 9601-9657; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12580, 52 FR 2923; 3 CFR, 1987 Comp., p. 193.

2. Table 2 of Appendix B to part 300 is amended by removing "Fort Dix (Landfill Site)",  
"Pemberton Township" under NJ.